IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Li et al.

Appl. No.: 08/852,824

Filed: May 7, 1997

Human G-Protein Coupled For:

Receptors

Art Unit: 1646

Examiner:

Basi, N.

Atty. Docket: 1488.1220000/EKS/EJH

Declaration of Steven M. Ruben Under 37 C.F.R. § 1.132

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

- I, Steven M. Ruben, hereby declare and state as follows: 1.
- 2. I am a named inventor of the captioned application, which is assigned to Human Genome Sciences, Inc. (HGS), and I am presently employed by HGS. The work described below was done by myself, under my supervision, or as part of a collaborative research effort with other individuals at HGS.

Human Epstein Barr Virus-Induced G-Protein Coupled Receptor-2 (EBI-2)

3. We obtained a cDNA clone encoding a human Epstein Barr virus-induced Gprotein coupled receptor-2 (EBI-2) by screening a human hippocampus cDNA library. This clone was designated HHPGS02. We determined nucleotide sequence information for the HHPGS02 clone, as described below, using sequencing methods which were routine and publicly available as of the May 7, 1997 filing date of the present application. The HHPGS02 clone that we obtained this sequence information from was deposited with the American Type Culture Collection (ATCC) on April 28, 1997 and was given ATCC Accession No. 209003. (See Attachment A.)

- 4. Evidence that the human HHPGS02 cDNA was deposited at the ATCC as Accession No. 209003 is provided by comparing the ATCC Deposit Receipt (Attachment A) with the information provided in the IRIS notebook page (entitled "Sequence Worksheet") included herewith as the first page of Attachment B.¹ The section of the page entitled "Sequence Information" corresponds clone HHPGS02² with the "HGS Code," 405439. HGS Code 405439 represents a particular sequence entry in IRIS for cDNA clone HHPGS02. HGS Code 405439 appears as the identifier on the ATCC deposit receipt. (See Attachment A.) This indicates that the clone used to obtain the sequence information of HGS Code 405439 was deposited. In other words, even though, as explained below, SEQ ID NO:1 and SEQ ID NO:2 in the Sequence Listing of the present application as originally filed, had typographical errors due to attorney error, the human HHPGS02 cDNA clone used to obtain the original, correct sequence data was deposited at the ATCC.
- 5. Attachment B provides four pages of data from the IRIS electronic notebook which shows the sequencing results of the human EBI-2 cDNA clone (i.e., HHPGS02). The HHPGS02 sequence was obtained using a 373 Automated DNA sequencer (Applied Biosystems, Inc.). Sequencing accuracy using this method is predicted to be greater than 97%.
- 6. The information obtained from the HHPGS02 sequencing run differs from the Sequence Listing currently on file in the present application at four positions. In particular, SEQ

¹IRIS is an electronic notebook used by HGS scientists to enter and maintain sequence data.

²The "XX" designation added to the 7-character clone ID on the IRIS Notebook pages, e.g., HHPGS02, merely indicates that the sequence of that clone is full-length.

ID NO:1 contains typographical errors at the following nucleotide positions: position 242, which should be A rather than T; position 266, which should be C rather than A; position 1870 (in the 3' untranslated region), where a T should be deleted, and position 2206, where an N should be deleted. These typographical errors in the nucleotide sequence result in the following errors to the encoded amino acid sequence depicted as SEQ IDNO:2: an isoleucine at position 6 should be replaced with an asparagine, and an asparagine at position 14 should be replaced with a threonine. Both of these changes are reflected in the HHPGS02 amino acid sequence data shown on the third and fourth pages of Attachment B, as well as in an amino acid alignment originally filed with the present application as Figure 2.

- 7. I believe that the actual nucleotide sequence of the human HHPGS02 cDNA clone is the same as that originally entered in the IRIS notebook.
- 8. I am of the opinion that the correct EBI-2 nucleotide and amino acid sequences would have been apparent to one skilled in the art in possession of ATCC Deposit No. 209003 and the data from the HHPGS02 sequencing run, as of the May 7, 1997 filing date of the present application. This is so because the correct EBI-2 coding sequence can be readily determined from the deposited clone and methods for sequencing this clone were routine in the art in May of 1997.

Human Endothelium Differentiaion Gene-1-Like (EDG-1-Like) G-Protein Coupled Receptor

9. We obtained a cDNA clone encoding a human endothelium differentiation gene-1-like (EDG-1-like) G-protein coupled receptor by screening a cDNA library derived from human activated neutrophils. This clone was designated HNFDL69. We determined nucleotide sequence information for the HNFDL69 clone, as described below, using sequencing methods which were routine and publicly available as of the May 7, 1997 filing date of the present application. The

HNFDL69 clone that we obtained this sequence information from was deposited with the American Type Culture Collection (ATCC) on April 28, 1997 and was given ATCC Accession No. 209004 (See Attachment A.)

- Accession No. 209004 is provided by comparing the ATCC Deposit Receipt (Attachment A) with the information provided in the IRIS notebook page (entitled "Sequence Worksheet") included herewith as the first page of Attachment C. The section of the page entitled "Sequence Information" corresponds clone HNFDL69 with the "HGS Code" 563238. HGS Code 563238, represents a particular sequence entry in IRIS for cDNA clone, HNFDL69. HGS code 563238 appears as the identifier on the ATCC deposit receipt. (See Attachment A.) This indicates that the clone used to obtain the sequence information of HGS Code 563238 was deposited. In other words, even though, as explained below, SEQ ID NO:3 and SEQ ID NO:4 of the Sequence Listing in the present application as originally filed, had typographical errors due to attorney error, the human HNFDL69 cDNA clone used to obtain the original, correct sequence data was deposited at the ATCC.
- 11. Attachment C provides three pages of data from the IRIS electronic notebook which shows the sequencing results of the human EDG-1-like cDNA clone (i.e., HNFDL69). The HNFDL69 sequence was obtained using a 373 Automated DNA sequencer (Applied Biosystems, Inc.). Sequencing accuracy using this method is predicted to be greater than 97%.
- 12. The information obtained from the HNFDL69 nucleotide sequencing run differs from the Sequence Listing currently on file in the present application in two positions. In particular, SEQ ID NO:3 contains typographical errors at the following nucleotide positions: position 828, which should be T rather than C; and position 831, which should be T rather than

A. Note that this latter typographical error introduced a stop codon into the open reading frame, causing the amino acid sequence, as translated from the sequence with the typographical error. to stop at position 260. Accordingly, these typographical errors in the nucleotide sequence result in the following errors to the encoded amino acid sequence depicted as SEQ IDNO:4: the serine at position 260 should be replaced with phenylalanine, and the translation should continue to amino acid 384, as depicted in the original translation provided on the third page of Attachment C. SEQ ID NO:4 further contains typographical errors at the following amino acid positions: position 191, which should be Asp rather than Asn, position 202, which should be Lys rather than Arg, and position 204, which should be Tyr rather than Thr. In addition, the translation should start with the Met at position 1, rather than the Ala at position -16. Both of the nucleotide sequence changes are reflected in the HNFDL69 nucleotide sequence data shown on the first and second pages of Attachment C, and the amino acid sequence changes are reflected in the HNFDL69 amino acid sequence data shown on the third page of Attachment C. In addition, The amino acid sequence data is reflected in an amino acid alignment originally filed with the present application as Figure 4, except for five residues at the 3' end of the polypeptide. These latter five residues are not in the alignment simply because they did not align with the second sequence in Figure 4, i.e., SEQ ID NO:18.

- 13. I believe that the actual nucleotide sequence of the human HNFDL69 cDNA clone is the same as that originally entered in the IRIS notebook.
- 14. I am of the opinion that the correct EDG-1-like nucleotide and amino acid sequences would have been apparent to one skilled in the art in possession of ATCC Deposit No. 209004 and the data from the HNFDL69 sequencing run, as of the May 7, 1997 filing date of the present application. This is so because the correct EDG-1-like coding sequence can be readily

determined from the deposited clone and methods for sequencing this clone were routine in the art in May of 1997.

15. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the Unites States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereupon.



American Type Culture Collection

12301 Parklawn Drive · Rockville, MD 20852 USA · Telephone: 301-231-5519 or 231-5532 · FAX: 301-816-4366

BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSES OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT ISSUED PURSUANT TO RULE 7.3 AND VIABILITY STATEMENT ISSUED PURSUANT TO RULE 10.2

I LE

To: (Name and Address of Depositor or Attorney)

Human Genome Sciences, Inc.

Attn: Robert H. Benson 9410 Key West Avenue Rockville, MD 20850 HGS PATENT DEPT.

351P1.5Kb

Deposited on Behalf of: Human Genome Sciences, Inc. (Ref. PF3S1PP.SKB)

PF351PP. SKB

Identification Reference by Depositor:

ATCC Designation

DNA Plasmid 405439 DNA Plasmid 563238 209003 V 209004

The deposits were accompanied by: __ a scientific description _a proposed taxonomic description indicated above.

The deposits were received

by this International Depository Authority and have been accepted.

AT YOUR REQUEST:

We will inform you of requests for the strains for 30 years.

The strains will be made available if a patent office signatory to the Budapest Treaty certifies one's right to receive, or if a U.S. Patent is issued citing the strains, and ATCC is instructed by the United States Patent & Trademark Office or the depositor to release said strains.

If the cultures should die or be destroyed during the effective term of the deposit, it shall be your responsibility to replace them with living cultures of the same.

The strains will be maintained for a period of at least 30 years from date of deposit, or five years after the most recent request for a sample, whichever is longer. The United States and many other countries are signatory to the Budapest Treaty.

The viability of the cultures cited above was tested

On that date, the cultures were viable.

International Depository Authority: American Type Culture Collection, Rockville, Md. 20852 USA

Signature of person having authority to represent ATCC:

Barbara M. Hailey, Administrator, Patent Depository

Date:



Sequence Worksheet HHPGS02XX: KIAA0001 [Homo sapiens] Human Genome Sciences, Inc.

Sequence Information

Gene Name: KIAA0001 [Homo sapiens]

HGS Code: 405439

Sequence ID: HHPGS02XX

Library Catalog: H0051

Library Name: Human Hippocampus

Lab Sequenced: HGS

Date Sequenced:

Previous Class: 2

Group ID: 56754

Class: 2

Date Scored: Lab Scored: HGS In Group: 23

Search Results

GRITABAO	score pescription
gi 292057	136 EBI 2: EBV induced G-protein coupled receptor [Hamo sapiens] >pir B45680 B45680 G protein-coupled peptide receptor EBI 2 -]
gi 471121 gn	169 angiotensin II type 1b receptor [Homo sapiens] >gi 471121 gn1 PID d1003474 angiotensin II type 1b receptor [Homo sapiens] >
gi 2580588	273 (AF002986) platelet activating receptor homolog [Homo sapiens] >sp 014626 014626 PLATELET ACTIVATING RECEPTOR HOMOLOG.
gi 2459585	528 VTR 15-20 receptor [Rattus norvegicus] >sp 035881 KI01_RAT PROBABLE G PROTEIN-COUPLED RECEPTOR VTR 15-20.
gi 285995	538 KIAA0001 [Homo sapiens] >sp Q15391 KI01_HUMAN PROBABLE G PROTEIN-COUPLED RECEPTOR KIAA0001.
gi 299615 gp	169 AT1 angiotensin II receptor [Oryctolagus sp.] >pir S A48857 AT1 angiotensin II receptor, AT1 ANG II receptor - rabbit >sp P
gi 217670 gp	171 angiotensin II receptor [Sus sp.] >gi 217670 gp D11340 PIGA2R_1 angiotensin II receptor [Sus sp.] >sp P30555 AG2R_PIG TYPE-
gi 44 gp x62	171 adrenal angiotensin II type-1 receptor [Bos taurus] >pir S S15403 angiotensin II receptor type 1 - bovine >sp P25104 AG2R_B/
gi 292057 gp	159 EBI 2: EBV induced G-protein coupled receptor [Hamo sapiens] >pir S B45680 G protein-coupled peptide receptor=EBI 2 - human
gi 285995 gp	686 ORF [Homo sapiens] >gi 285995 gp D13626 HUMRSC338_1 ORF [Homo sapiens]

Sequence

HHPGS02XX unannotated; DNA; 2247 BP.

KIAA0001 [Homo sapiens]

Sequence 2247 BP;

멹 × &

GCACGAGGAA CAGAACACIT TCTCATGICC AGGGICAGAT TACAAGAGCA CTCAAGACIT GCGATGAGGA TITTICITTICA AATCCGGAGT AAATCAAACT TIATTATITIT TCTTAAGAAC GICCICITICC AATCICACCT ATTICAAACCC TIMAAAAGGAA AAIIACCAGAII GCCACIICIGC AGGCIGCAAII AACIIACII ITACIIGGAIIAC TACIGACGAA AACTCAGGAA AICCTCTAIC ACAAAGAGGT TIGGCAACIA AACTAAGACA CACIGCICIA CACIGICCIG CIGCOCCIGG GAACACCAGI TCCAGAATCA ACAGTTATCA TITITIGITG GACTIATICAC AAAIGGCCIG CIGIGCACCA GAGACTACAA AATCACCCAG GGTAACCAAC AAGAAATGCA AGCCGTCGAC



Human Genome Sciences, Inc. Sequence Worksheet HHPGS02XX: KIAA0001 [Homo sapiens]

TAAAtcatta aaAAAAAAA AAAAAA ATCIGITIGI AATTACITGI TIGIATIGGI AAAATTAATT TAATTAGCTT AAACIAGITT TACTAATITT TTACAACITC AATAATACCA TCACTGACAC AAAGATTTAA CTAAGGAAGA ACGATCAATT GGATATAATC CACTTACTT ATTTAAACTA AGTIGGGATAC ATATATOCTA GATTACAAAA GCAATTTTCA AATATTTACT CATGCAAAAC AACTAATCTA AAAAATATTA ACTGACGAAG AAGCAACTAA TAACTAAGGA AATAGGAAAA AGAAAITCCT GAIGICITIG TRACTICCI GTAGGTAAAG ATTGTATGTT TGGCATGAAA CAGCCCAGAG GTIGICATOT TTATTIGIT ACCACCAGGC TICACAAIGT AAACTGGGAA ACAGICATIT AAATATGATT CTAGAAAATA TATGACATTC GAAGACCITT ACAATAAAGA GICCCCTAAC GIAATTTTTA AAATACATTA TACACAGAAT TCATGITTIG ATTIGAAACTG ACAAAGAATA AACIGIAGCI GIAITAGCAG AATATTICAA TCICITIGIG TICAGAACIC AAGAACAGGA TGGTGGTGAC TGATAAGTAT GCTGAAGTGC TAAATGCATG ACTOCACtGc TIGITOCITY ATACACICAT ACAAGAATGT TCCCCAGGAA AAAGGTGAAC TAGTAAATTA CAGGACCACT GAGAACTTT CIGATOTICT CATGATICIG GGCATICAT CATTTAAAAC ATATCAGIAT TICATICCIG ACAAAGITIGC GCIGCIPAIT AGGITAATGA TAATACTAAA ATAACTATTA Caratoctica TITACCITIC TATTICATIC CCIGGAICCG **tGAAAATACT** CCATTTIGCC TACAAAAGAA GaAGAAaTGC GIICITACIC CATCIGICAA ATOCAACCC GIGTATAAAA TACAAATITA ACAGCATAAC AAATATAGAA GAAGAAATAT GACITAATTT TITATGTTTA ACTITICATT ATTAGCCAAA CCTATTGGGA TICTIACCAA TOGTTCACAA **GCAGAGITIT GGCAAAAIGA** CAAAACAAAC CAGTATGAAA AGCTATCTTA GITAATAATA AIGACICTAA CCAAATGAAG CCCAATTCIG CAACATCICT TICATCIAIT TITICCITIG CIGITCIAIG IGAAAGAGAG CIGIACCGGI GICATTITCT CGAATICCIT GICAAAGITT TCITICCITA AATCAGAGIT TCITEGCCIA ACATGATICT AAAAATCICT GGACIGATAA CTATCGATCG CTACCAGAAG GIGIGICAAG ACTITITICCAT TCAAAATTCT TAGTGATGCC TACTGAGAGG ATATTICCIT CGAAGICATT ACATTITACC TACTTATAAA AAATGATAGT TITIATITI GACATCCAAT GITAAAGCAA ACACCCTGAG TCATTATCAT AGACTOCAAT CATACGTAAG TGGGGCTAA GATTCTCTCT GGATTAATTT TTACCICCGI CATTAAACTC AAAGIGATIG AATTCTAGAG AAAATAAGGA TTAGTGAAAA TTACCTITAT TTTAGAAGAT AACCTAAGGG AATTTAAGTA TAAAAIGIAI GTAATCATAT TGICATGCIG TCATAATCAA AAATATAGAA AGAAACAGAA AGCGCTAAG TECTETATIC CITAATIGIT COGICIAGIC GACCAACAG GTAAACAAAT GICCCAGGAC CAAGICCITC CACICIGIGG CCAAACCCGG AACGAGGGTI CATATTITAI

Sequence Notes

 \geq



HHPGS02XX: KIAA0001 [Homo sapiens] Sequence Worksheet Human Genome Sciences, Inc.

Sequence Information

Gene Name: KIAA0001 [Homo sapiens]

HGS Code: 405439

Library Catalog: H0051

Library Name: Human Hippocampus

Date Sequenced:

Date Scored

Lab Sequenced: HGS

Lab Scored: HGS

Class:

N

Sequence ID: HHPGS02XX

Group ID: 56754

In Group: 23

Previous Class: N

gi | 292057 | gp gi | 217670 | gp gi | 299615 | gp gi | 44 | gp | x62 gi 285995 gi | 2580588 gi |471121 |gr. gi|292057 2459585 169

Overlap

Score Description

earch Results

53 8 169 273 angiotensin II receptor [Sus sp.] >gi|217670|gp|D11340|PIGA2R_1 angiotensin II receptor [Sus sp.] >sp|P30555|AG2R_PIG TYPE-ATI angiotensin II receptor [Oryctolagus sp.] >pir|S|A48857 ATI angiotensin II receptor, ATI ANG II receptor -KIAA0001 [Homo sapiens] >sp|Q15391|KI01_HUMAN PROBABLE G PROTEIN-COUPLED RECEPTOR KIAA0001. angiotensin II type 1b receptor [Homo sapiens] >gi|471121|gnl|PID|d1003474 angiotensin II type 1b receptor [Homo sapiens] >j adrenal angiotensin II type-1 receptor [Bos taurus] >pir|S|S15403 angiotensin II receptor type 1 - bovine >sp|P25104|AG2R_B (AF002986) platelet activating receptor homolog [Homo sapiens] >sp|014626|014626 PLATELET ACTIVATING RECEPTOR HOMOLOG VIR 15-20 receptor [Rattus norvegicus] >sp|035881|KI01_RAT PROBABLE G PROTEIN-COUPLED RECEPTOR VIR 15-20. EBI 2: EBV induced G-protein coupled receptor [Hamo sapiens] >pir|B45680|B45680 G protein-coupled peptide receptor EBI 2

Sequence

gi | 285995 | gp

ORF [Homo sapiens] >gi|285995|gp|D13626|HUMRSC338_1 ORF [Homo sapiens]

EBI 2: EBV induced G-protein coupled receptor [Hamo sapiens] >pir|S|B45680 G protein-coupled peptide receptor=EBI 2 - human

HHPGS02XX unannotated; INA; 749 BP KIAA0001 [Homo sapiens

Sequence 749 BP;

8

VGKVPRKKVN VKVFIIIAVF FIMYISISFL LISLNACLDP FIYFFLCKSF RNSLISMLKC PNSATSLSQD NRKKEQDGGD PNEETPM*IN **QPRDKNVKKC** AMRIFFQIRS ARGIEHFIMS RVRLQEHSRL Y*RKLRKSSI TKRFGN*TKT LKGKYQMPLC RLQ*LLLTGY IQTILQNQQLS SFLKSEFGLV WHEIVNYICQ VIEWINFLIV GLITIDRYQK TIRPFKTSNP KNLLGAKILS VVIWAFMFLL KSNFIIFLKN TVISDLIMIL GVQQEVQAVD NLTSAPGNIS LCTRDYKITQ VLFPLLYTVL FICEVPEHEA RIPYTLSQIR DVFDCTAENT TEPFKILSDA IVCYTLITKE KLGIGPLRIF LFYVKESILW LYRSYVRTRG SLEMMILINE VCQVISVIFY FFVGLITNGL



Human Genome Sciences, Inc. Sequence Worksheet HHPGS02XX: KIAA0001 [Homo sapiens]

*LRKYFNLFV FRIR*SKALS KNIN*RRSN* VNNNDSKEIE DYKSNFHLPF QYEKLS*NIE
N*SKL*LY*Q QNKRHPIVML HAKLHRIHVL AEFWQNE*SY NIYCNF*NIL SFTILFFHNQ
LRKNDQLDII FLPKMIVKMY IYPSPLIKS* PIGILIKI*V SGIHKE**LL IFHY*PKIT*G
I*IN*NCI*L DLIFYVYLED KDLRRPLQ*R EEISKSLK*G DLLL*HSNIK KYRNISLILE
KLVLLIFYNF NNTITDIYLY *LASRK*LLI RLMNILP**K KIN*I*LQSC TA*LLRGK*L
ICL*LLVCIG VYKIQIYIKL *IIKKKKKK

Sequence Notes



Human Genome Sciences, Inc.

Sequence Worksheet HNFDL69XX: H.sapiens repeat polymorphism in LIPE gene for hor

Sequence Information

Gene Name: H.sapiens repeat polymorphism in LIPE gene to

HGS Code: 563238

Library Catalog: H0271

Sequence ID: HNFDL69XX

Library Name: Human Neutrophil, Activated

Date Sequenced:

Date Scored:

Lab Sequenced: HGS

Group ID: 2514675

Class: 1

Lab Scored: HGS

In Group: 18

Previous Class: 1

Overlap Score Description

Search Results

	gp M31210 HUI
99 RW 152 pH218 [Rattus norvegicus] >pir S JC1465 probable G protein-coupled receptor - rat	gp U10699 RN
	gp L20334 MU
	gp X55812 RN
37 HS 93 cannabinoid receptor [Homo sapiens] >pir S S17595 cannabinoid receptor - human >sp P21554 CB1R HUMAN CANNABINOID RECEPTOR 1	gp X54937 HS
gb X65642 260 H.sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase.	gb X6564;

Sequence

HNFDL69XX unannotated; INA; 1637 BP.

H.sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase

 \aleph

田 Ħ

Sequence 1637 BP;

CITCATOGGC GCICTICACC CCIGGIGAAC CITICATIC CATIGITICIG GGGGACCCCG GGCACGAGCC GCIGICGGG CGGCTIGGGG CICIOCIGC IGCIGGCCC GCIGCIGGG AIGCIGCCIT IGCIGGGCIC **GCCCIGCGG** GIGGGGGG SCORTSCOR GCCCGCACCT ATTACCATCA CTGGGGGCA GIGGCCCCCC CACTACAACC CACCCIGCGI CGGGCCTCAG TCAGCCCCCG TIGGCCCACAG CCICCACCIT TCCGTCTGGC GIGACCIGCI TCACCAGCCA GCTGTCGGT AGTOCTGCCA **ACTOGGGGG** GGCCGCCAGC CAGCCIGCIC GCCCGCCCAG CACGGGGGG CATGCGGTCG ACAGCIGGG GCIGGCCGGG GGGGAGGCCA AAGACCAGCC TICACIGCAG TEGTTCCTAC GCCTACCTGG CAACGCTGGG **IGCCIGGIGG CECCECE** 90099999 GCGICIACGG CCAACGIGCI TGAACGCCAC GGITIGCGCITI GGAAGGGCT TCTACTATIG TIGCTIGGAGAA CGGAGGATGC ACAGCCGCT



Human Genome Sciences, Inc.

HNFDL69XX: H.sapiens repeat polymorphism in LIPE gene for hor Sequence Worksheet

*ААААААААА ААААА*А GGGAIGCAIG CCCIGGCAAC AITIGAAGITIC GAICAIGGIA AAAAAAAAAA AAAAAAAAAA GGAAGICCCG GCCCCICICI AGAGCACCCT CCATTICCCTA TIGGCTCACCC ACAGGCCCC CCIGGGGTAC CIGAAGITICC CCCICCCIC CATCATCTAC TCACTCCGGA COGGIGICIC GIACCIGGG GGGACCACTC CAAGGCCCCC GGCCATCITC CATCCICITC GAACIGCCIG GETGTGGGGG ATGGACTTGC AGGAAGCTGT AGICITECET AGCITICGGA GCTTCCACCA CCGACAGCTC COGCIOGGCA TICCGAGGGCC GGCATGGACT TCCTTCCCCA TICGGGCTGC CECCIGCIGA CECCIGEIGC TECCTEGICA TOTTOGCOGG CGTCCTGGCC TECCECTIFIC ACCECTECTC CACCCTICTE CCCCTCTACT CCAAGCCCTA GGGCCTCAGT CCAGIGGGIT TGGACAAGGA TIGOGGGAGCC CCGGIGGCCI GIGCACGCAA GIGGAIGGIG GCAGGGAGGT GGATCCTGGC AGACGGIGCT AGGCCAGCGG TIGCTIGGCCGA AGGGCICCCA GGCIGCAAGG GGIGGACIGI CCCCACAACC GGCAACCACC CICGGGGCIT, CIGACGCCAT CCICGCCCIG CAACCACCGG GIGCAGAGCC GATGATCCTG GCAGAAGGCC CCIGICCAGC TCTGAGGCCA CGGGGACTGC CCIGGCGGIC CGICITIGGC CCGCTTCTGT GTGATTCTGG CCACCICCC TATIGGGGAGC GIGCGIGCCA ATCTCCAGCG AGGGACAGCT CIGGCCCGGG GIGCICAGCI TOCTCIGCIG CIGGCCIICI CICAACICGG TOCAMOCICI CCACGCCCAG ACCATCATGG ATGGACTIGO GTAGGAGCAG AGGGAACGGG GGCAGGCCT TGCGGAGCAI TICGCGCTC COGIOGAGGC CGGTCAACCC GGGCCCAGGA TOGIGIGCIG 300000000 GCCICIAIGG

Sequence Notes



Human Genome Sciences, Inc.

HNFDL69XX: H.sapiens repeat polymorphism in LIPE gene for hor Sequence Worksheet

Sequence Information

Gene Name: H.sapiens repeat polymorphism in LIPE gene 1

Library Name: Human Neutrophil, Activated Library Catalog: H0271

Date Sequenced

Date Scored:

Lab Sequenced: HGS

Lab Scored: HGS

Group ID: 2514675

HGS Code: 563238

Sequence ID: HNFDL69XX

Class:

In Group: 18

Previous Class:

Search Results

	Overlap Score Description gb X65642 260 H.sapiens re
**	gp X54937 HS
:	9p X55812 RN 9p L20334 MU
	95 010699 RN 95 M31210 HU

Sequence

HNFDL69XX unannotated; DNA; 545 BP.

⅍ 띪 Ħ

H. sapiens repeat polymorphism in LIPE gene for hormone sensitive lipase

Sequence 545 BP;

EHPGVGASGF GLGALRGLSV LGYRKLCARN YLRGMIWILA HSCASTIDSS AIFRLVQASG FIGLOWILAA LSGARTFRLA ARAHPASGLS PITPLLCDSG EVPAPLWASV LALYGEQGIG AASCLWLEN LRPRDSFRGS LAVINSAVNP QKAPRPAARR KARRLLKTVL PAQWELRKGL **ILLEMILPLICA** QPPGEAMNAT GTPVAPESCQ QAPMDLPGGL SGLLTPYGLA HCLWLTLDKE RSLSFRMREP NCLCAFDRCS LFTALAASIF IIYSFRSREV HSTEAMINE GLPGCKGWIV GCMPWQH*SS MILLAFLVCW LSSISSVRSI CRAVISFICC SLLPLYSKRY SLLFTAGLRF MRSQRWVYYC QLAAGGHSRL IVLHYNHSGR LAGRGGPEDG GCLRLGMRGP GPLFGLLLAD *SCSLACGWC AIMVRPVAES ILFCLVIFAG TYNITMSDLL GDCLARAVEA **IMVKKKKKKK** ATTPPPRRSR NHRVRARQAL VFGSNLWAQE VLATIMELYG GATKTSRVYG TGAAYLANVL

Sequence Notes